

IOWA HIGHWAY RESEARCH BOARD

Minutes of January 31, 2003

Regular Board Members Present

J. Adam	B. Keierleber
L. Brehm	K. Mahoney
J. Byg	C. Marker
R. Ettema	M. Nahra
T. Fonkert	G. Parker
L. Greimann	J. Selmer
D. Julius	C. Van Buskirk

Alternate Board Members Present

J. Berger for R. Gould	D. Short
L. Jesse	A. Smith
J. Krist	B. Younie
G. Miller	

Board Members With No Representation

None

Secretary

M. Dunn

Visitors

Bob Given	<i>Iowa Concrete Paving Association</i>
Bruce Brakke	<i>Iowa Department of Transportation</i>
Sara Buseman	<i>Iowa Department of Transportation</i>
Ed Engle	<i>Iowa Department of Transportation</i>
Sandra Larson	<i>Iowa Department of Transportation</i>
Mohammad Mujeeb	<i>Iowa Department of Transportation</i>
Joe Putherickal	<i>Iowa Department of Transportation</i>
Brent Phares	<i>Iowa State University</i>
Terry Wipf	<i>Iowa State University</i>
Doug Wood	<i>Iowa State University</i>
Steve Andrle	<i>Iowa State University/CTRE</i>
Hiromi Shirahata	<i>Iowa State University/Musashi Inst. Tech.</i>

The meeting was held in the Large Materials Conference Room at the Iowa Department of Transportation, Ames, Iowa. The meeting was called to order at 9:05 A.M. by Dr. Rob Ettema.

Dr. Ettema announced the new members and alternates and welcomed them to the Board.

Agenda review/modification

- None

Approval of the minutes

- John Adam moved to approve the minutes from the December 27, 2002 meeting with the correction of the next meeting date to January 31, 2003 referred to in the Drainage Law RFP discussion in the New Business section. Brian Keierleber seconded. Carried with 12 yes, 0 no, and 0 abstaining.

County Engineers' comments on attending the Annual TRB Conference

- Lyle Brehm commented on the impressive size and organization of the conference. He mentioned that some of the meetings he attended had the potential for practical application in the future. He also expressed his appreciation that there is a permanent member, Mark Nahra, from the county engineers attending. This provides consistency and allows information to constantly be brought back to Iowa.
- Charles Marker continued with summarizing the conference as “the differences and the changes in transportation philosophy”. He mentioned some of the topics of meetings that he attended including low volume roads, sign reflectivity, and field application of adhesives. He was impressed by the involvement and representation of Iowa State University, The University of Iowa and others from Iowa who are so involved. Overall, the experience gave him a new perspective and a new appreciation for how well Iowa is represented on a national level and how well the IHRB fits into the larger scheme of research.
- They both expressed thanks to the IRHB for the opportunity to attend and the exposure they were able to have from a conference like this.

Review of Proposals from 2nd Solicitation for FY 02-03

Development of Winter Performance Measures for Highway Winter Maintenance Operations

- Competing proposals were received from Dr. Tom Maze, Iowa State University and Dr. Wilfrid Nixon, The University of Iowa.
- *Comments/Discussion:*
 - Both proposals were felt to be solid proposals.
 - Dr. Maze's (ISU) literature search seemed more complete in that it mentioned what was going on with the Swedish National Road Administration and with the Minnesota DOT. However, there was no clear cost discussion on what kinds of expenditures were being done for a given storm. It was felt that it was more hidden but possibly referred to in Task 7.

- Cost was felt to be major factor and favor was expressed towards Dr. Nixon's (U of I) proposal since it expressed quite clearly that one aspect of performance was how costly something was and that would be included in the research.
 - The storm index approach in the U of I proposal appeared to have the intent to measure the response of performance against of what is having to be dealt with, which seemed like a very logical measurement that would be applicable for the end user of the information. It also seemed to be tied back to the cost aspect.
 - The resume wasn't found in the proposal for Dr. Maze.
 - Dr. Nixon has a lot of experience in this field.
 - Both were going to organize an advisory committee. The U of I proposal included both state and county personnel. The ISU proposal did not include a county representative. It was felt that the involvement of a county person would be preferred at some point.
- *Vote to select proposal:*
 - Iowa State University/CTRE, Dr. Maze: 0 votes
 - The University of Iowa, Dr. Nixon: 13 votes – ***Selected***
 - Abstaining: 2 votes
 - *Issues/Concerns that the board would like staff to address:*
 - None
 - *Vote to approve:*
 - Mark Nahra moved to accept Dr. Nixon's proposal with a funding split of 80% Primary, 10% Secondary, and 10% Street. Doug Julius seconded. Carried with 14 yes, 0 no, and 1 abstaining.

Final Report, TR-436, "Retrofit Methods for Distortion Cracking Problems in Plate Girder Bridges"

- Terry Wipf reviewed those involved with this project and presented the background and problem statement; the retrofit methods; the scope of the report, including the 4 bridges instrumented, the tests run before and after the retrofit, and the short and long term monitoring information; the results and the conclusions of the research.
- Clarification was made on some of the retrofit specifics: the location of the bolts that were being loosened, some of the monitoring results on stresses and wearing, and reference was made to the appendix which listed checks that should be done on a structure to see if this is the best option.
- Bruce Brakke commented on the national interest in this research.
- Charles Marker moved to approve the final report. John Selmer seconded. Carried with 14 yes, 0 no, and 1 abstaining.

Problem Statement, "Performance Evaluation of Steel Bridges: Phase II"

- Brent Phares, Iowa State University, reviewed the objectives, the proposed bridges, the long term monitoring plans, the other agencies interested, the proposed end products, the schedule and budget of the next phase of research.
- The goal of the monitoring system is to have a remote link for the monitoring system.

- There was no real concern on the effects of monitoring bridges with one way traffic versus two way traffic. The two main goals are to develop an efficient, easy to use monitoring system and to continue evaluation on the types of bridges that the Office of Bridges and Structures is requesting being done.
- Mark Nahra moved to approve the problem statement and invite the investigators to bring a proposal back to the Board for review. Lyle Brehm seconded. Carried with 14 yes, 0 no, and 1 abstaining.
- A recommended funding split of 75% Primary, 20% Secondary and 5% Street was also discussed.

Discussion on the Missouri NRCS program and the IHRB solicited proposal, “A Computer Program for On-Road Impoundment Structure Design”

- Mark Dunn reviewed the background for this topic. The proposal received from LaDon Jones had previously been tabled until more information from the NRCS could be obtained.
- The NRCS will be getting the 1st version of this program for review in March.
- Some aspects that were requested in the initial IHRB RFP were not included in the scope of this research, such as CAD information. The Board asked that Mark Dunn draft a letter showing interest in supporting the development of the current specs, plus having these additional areas be addressed on the front end of development if possible, or the option of us taking it further once this stage is completed.
- The Board’s initial RFP along with Dr. Jones proposal, will not be pursued due to these developments. Dr. Jones has been kept updated on all of this.

Review of Drainage RFP for 2nd Solicitation FY 02-03

- The Board liked the changes that were done within the RFP.
- Mark Dunn will set up technical contacts and send the RFP out prior to the next Board meeting.
- The Board discussed the audience to receive this RFP. Mark Dunn commented on the people that he had talked with showing interest in sitting on the advisory group, but not showing any interest in doing the project itself. Jerry Byg recommended contacting Virtue Engineering, Jack Virtue from Onawa. The RFP will be sent to our regular group, plus any additional contacts that Board members and alternates may get to Mark Dunn prior to mailing the RFP.

Discussion on changes in required format for proposals - Attachment A to the Business Plan

- It was felt that the staffing section was stated more clearly.
- After discussion, it was decided that the section requiring quarterly meetings for the advisory boards should be changed to a recommendation of holding quarterly meetings, but that a meeting schedule, appropriate for the research being done, would be decided upon by the advisory group during the onset of the project.

- It was thought that it may be more appropriate to have the facilities section incorporated within the research plan instead of having a separate section for the item.
- It was the general consensus that it was a good change, was more clear than the old version, and would be a good tool in structuring the proposals.
- Mark Dunn will make the recommended changes and bring it back to the February meeting along with the annual review of the entire IHRB Business Plan.

Information presented by Sandra Larson, Director of the Iowa DOT Research and Technology Bureau

- ***Miscellaneous information reviewed***
 - Sandra Larson handed out some information regarding the Mid-Continent Transportation Research Symposium, which will be held August 21-22, 2003.
 - Also reviewed was information regarding a pooled fund study involving several states that is being pursued entitled, "Materials and Construction Optimization for Prevention of Premature Pavement Distress in PCC Pavements."
 - The handouts on the previous topics reviewed, plus the latest copy of the *Research News* publication, were e-mailed to the members and alternates following the meeting.
- ***Update on information from the 511 project relating to the research topics of Transportation Information Systems for Road System Managers/Users***
 - Sandra Larson handed out parts of the 511 media kit, discussed how to use the system and reviewed the 3 phases of the 511 project. She reported on the collaboration of the 8 states involved and on how the system is performing to date.
 - Mark Dunn summarized the direction on the IHRB RFPs affected by this information. The research for Road System Users was stopped due to the 511 project addressing the main scope of that IHRB topic. The RFP for Road System Managers was originally solicited, re-solicited and then put on hold until the direction of 511 was known and more specifically, what the Board was wanting from the RFP. As the system is more fully developed, the Board can revisit this topic if it is felt that there is still a need in addition to what is being done with the 511 project.
 - Kevin Mahoney reported that the Governor has requested that the State Patrol implement an Amber Alert system; it is in the formative stage. The DOT is supportive with the use of the permanent dynamic message signs. For some time now, the state has been looking at the development of a statewide system of changeable message signs, which could be used for various reasons.

New Business

- ***Annual Review of Business Plan***
 - Mark Dunn stated that the IHRB Business Plan states that the Board will review the Business Plan annually. This will be added to the Calendar of Activities contained within the document as a reminder. The current Business Plan will be sent in the February Board packet. Any changes made will be highlighted in gray.

- ***Reviewer's Evaluation of the Proposal summary sheets***

- It was mentioned that if any of the Board members or alternates have completed evaluation sheets reviewing the solicited proposals, that those should be given to Mark Dunn so that they can be made available upon request to those who have submitted proposals.

- ***General information available***

- Dr. Ettema announced that there were Member/Alternate and Meeting Date lists available which contain the current changes for 2003. The Primary, Secondary and Street Funds summary list was also made available.

Dr. Rob Ettema adjourned the meeting.

Date of Next Meeting: THE NEXT MEETING WILL BE HELD FRIDAY, FEBRUARY 28, 2003 AT 9:00 A.M. IN THE LARGE MATERIALS CONFERENCE ROOM AT THE IOWA DOT, CENTRAL COMPLEX, IN AMES, IOWA.

Mark Dunn, IHRB Secretary